

REMARKS

Claims 1, 3-36 and 38-40 remain in this application. Claims 8-17, 20, 21 and 25-30 were all indicated in the last Office Action as being allowable if rewritten to remove their dependency from a rejected claim.

All of the claims remaining and particularly independent claim 1 have been amended to better define applicant's invention over the prior art. Specifically, claim 1 calls for first and second liquid collection regions as well as first and second sumps. The claim also specifies that some of the liquid collection channels in each of the first and second regions drain into the first sump and some drain into the second sump. This is to be contrasted with the teachings of all of the prior art patents where multiple channels in the collector of a single region all drain into a single sump. Stated differently, the essence of the present applicant's invention is to have channels from any one region alternately draining into different sumps rather than the same sump.

In the Huber reference there is no preferential flow of liquid from channels in the same region. Huber discloses two liquid collection regions and the channels from each drain into a dedicated sump associated solely with that region. This is to be contrasted with the limitation of the present applicant's claim 1 which specifies that some of the liquid channels in each of the two collection regions drain into the first sump and some drain into the second sump.

The Lafevre patent discloses a liquid collection system for a cooling tower where multiple channels direct liquid into sumps (or troughs) which are beneath the collection plates. There is absolutely no teaching or suggestion in the Lefevre reference of having some collection channels in a region draining into a first sump and other collection channels in the same region draining into a second sump. This is a specific limitation of claim 1.

FIGS. 1-6 of the Robinson reference disclose a plurality of parallel chordal sumps 5 which receive liquid from overlying collection panels. There are also circumferential sumps. Robinson offers no teaching, however, of preferentially directing liquid from a collection region partially to a first sump and partially to a second sump. This is a specific limitation of applicant's amended claim 1.

The Tokerud et al. reference was used to reject claim 24 which calls for intersecting chordal pumps. While Tokerud does disclose intersecting chordal pumps, the reference offers no teaching whatsoever of preferentially directing flow from channels within a collection region between first and second sumps as is specifically required by the present applicant's amended claim 1.

Applicant has amended claim 12 by replacing the word "interspersed" with "—placed--" and the word "fashion" with "- -arrangement- -". It is believed these changes provide greater specificity to the claim.

Claim 23 has been amended to change the language "wherein said opening" to - - wherein one of said openings- -. Newly submitted apparatus claim 39 specifically claims a construction where the collection channels are inclined in the direction of flow to thereby impede flow in the opposite direction. Such an arrangement is specifically disclosed at page 11, last sentence, of the specification. Such an arrangement would be an alternative to the flow restrictor structure specified in claim 8.

Newly submitted claim 40 specifies that the first and second sumps can both be annular and basically is the equivalent of claim 5 which specified that both the first and second sumps were chordal.

Method claim 31 has been amended to specify the alternating arrangement of the flow channels which empty into the two sumps. This method claim has been written by specifying a single liquid collection region but requiring preferential direction of four different quantities of liquid so that there is liquid being directed from at least two different collection channels into the first sump and liquid from at least two different collection channels being directed a second sump. Stated differently, the claim specifies that liquid from any one region be directed to both first and second sumps. This is to be contrasted with the prior art patents discussed above, all of which teach that liquid from a single region should go to a single sump. All of the remaining claims are dependent from either independent claim 1 or independent claim 31 and are therefore allowable for the reasons discussed.

When the prior art is taken as a whole, there is certainly no teaching or suggestion which would render the present applicant's invention obvious since the prior art consistently teaches that liquid is drained from any one region only in one direction into a dedicated sump. The present applicant has proceeded contrary to these teachings, which notably span a period of some 40 years, in the discovery that liquid from the same region can be beneficially directed to different sumps in the same horizontal plane. The advantages resulting from the novel arrangement according to the present invention are discussed in detail at paragraph 52 on page 20 of the specification as well as elsewhere throughout the application. It is believed this application is in full condition for allowance and such favorable action is solicited.

Respectfully submitted,

By:
J. David Wharton, Reg. No. 25,717

STINSON MORRISON HECKER LLP
1201 Walnut, Suite 2800
Kansas City, MO 64106-2150
Telephone: (816) 842-8600
Facsimile: (816) 691-3495